



SEQUENCE LISTING

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<120> METHOD FOR PRODUCING L-THREONINE USING BACTERIA
BELONGING TO THE GENUS ESCHERICHIA

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<160> 6

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<210> 1

<211> 1191

<212> DNA

<213> Escherichia coli

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<221> CDS

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gcc gat ctg ttt cgt gcc gat gaa cgt ccc ggc aaa att aac ctc ggg 96
Ala Asp Leu Phe Arg Ala Asp Glu Arg Pro Gly Lys Ile Asn Leu Gly
20 25 30

att ggt gtc tat aaa gat gag acg ggc aaa acc ccg gta ctg acc agc 144
Ile Gly Val Tyr Lys Asp Glu Thr Gly Lys Thr Pro Val Leu Thr Ser
35 40 45

gtg aaa aag gct gaa cag tat ctg ctc gaa aat gaa acc acc aaa aat 192
Val Lys Lys Ala Glu Gln Tyr Leu Leu Glu Asn Glu Thr Thr Lys Asn
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tac ctc ggc att gac ggc atc cct gaa ttt ggt cgc tgc act cag gaa 240
Tyr Leu Gly Ile Asp Gly Ile Pro Glu Phe Gly Arg Cys Thr Gln Glu
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ctg ctg ttt ggt aaa ggt agc gcc ctg atc aat gac aaa cgt gct cgc	288
Leu Leu Phe Gly Lys Gly Ser Ala Leu Ile Asn Asp Lys Arg Ala Arg	
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acg gca cag act ccg ggg ggc act ggc gca cta cgc gtg gct gcc gat	336
Thr Ala Gln Thr Pro Gly Gly Thr Gly Ala Leu Arg Val Ala Ala Asp	
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ttc ctg gca aaa aat acc agc gtt aag cgt gtg tgg gtg agc aac cca	384
Phe Leu Ala Lys Asn Thr Ser Val Lys Arg Val Trp Val Ser Asn Pro	
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agc tgg ccg aac cat aag agc gtc ttt aac tct gca ggt ctg gaa gtt	432
Ser Trp Pro Asn His Lys Ser Val Phe Asn Ser Ala Gly Leu Glu Val	
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cgt gaa tac gct tat tat gat gcg gaa aat cac act ctt gac ttc gat	480
Arg Glu Tyr Ala Tyr Tyr Asp Ala Glu Asn His Thr Leu Asp Phe Asp	
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gca ctg att aac agc ctg aat gaa gct cag gct ggc gac gta gtg ctg	528
Ala Leu Ile Asn Ser Leu Asn Glu Ala Gln Ala Gly Asp Val Val Leu	
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ttc cat ggc tgc tgc cat aac cca acc ggt atc gac cct acg ctg gaa	576
Phe His Gly Cys Cys His Asn Pro Thr Gly Ile Asp Pro Thr Leu Glu	
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caa tgg caa aca ctg gca caa ctc tcc gtt gag aaa ggc tgg tta ccg	624
Gln Trp Gln Thr Leu Ala Gln Leu Ser Val Glu Lys Gly Trp Leu Pro	
195 200 205	
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Leu Phe Asp Phe Ala Tyr Gln Gly Phe Ala Arg Gly Leu Glu Glu Asp	
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Ala Glu Gly Leu Arg Ala Phe Ala Ala Met His Lys Glu Leu Ile Val	
225 230 235 240	
gcc agt tcc tac tct aaa aac ttt ggc ctg tac aac gag cgt gtt ggc	768
Ala Ser Ser Tyr Ser Lys Asn Phe Gly Leu Tyr Asn Glu Arg Val Gly	
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Ala Cys Thr Leu Val Ala Ala Asp Ser Glu Thr Val Asp Arg Ala Phe	
260 265 270	
agc caa atg aaa gcg gcg att cgc gct aac tac tct aac cca cca gca	864
Ser Gln Met Lys Ala Ala Ile Arg Ala Asn Tyr Ser Asn Pro Pro Ala	
275 280 285	
cac ggc gct tct gtt gtt gcc acc atc ctg agc aac gat gcg tta cgt	912
His Gly Ala Ser Val Val Ala Thr Ile Leu Ser Asn Asp Ala Leu Arg	
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gcg att tgg gaa caa gag ctg act gat atg cgc cag cgt att cag cgt 960
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 325 330 335

gac ttc agc ttt atc atc aaa cag aac ggc atg ttc tcc ttc agt ggc 1056
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ctg aca aaa gaa caa gtg ctg cgt ctg cgc gaa gag ttt ggc gta tat 1104
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 355 360 365

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 35 40 45

Val Lys Lys Ala Glu Gln Tyr Leu Leu Glu Asn Glu Thr Thr Lys Asn
 50 55 60

Tyr Leu Gly Ile Asp Gly Ile Pro Glu Phe Gly Arg Cys Thr Gln Glu
 65 70 75 80

Leu Leu Phe Gly Lys Gly Ser Ala Leu Ile Asn Asp Lys Arg Ala Arg
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Thr Ala Gln Thr Pro Gly Gly Thr Gly Ala Leu Arg Val Ala Ala Asp
 100 105 110

Phe Leu Ala Lys Asn Thr Ser Val Lys Arg Val Trp Val Ser Asn Pro
 115 120 125

Ser Trp Pro Asn His Lys Ser Val Phe Asn Ser Ala Gly Leu Glu Val
 130 135 140

Arg Glu Tyr Ala Tyr Tyr Asp Ala Glu Asn His Thr Leu Asp Phe Asp
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 Ala Leu Ile Asn Ser Leu Asn Glu Ala Gln Ala Gly Asp Val Val Leu
 165 170 175
 Phe His Gly Cys Cys His Asn Pro Thr Gly Ile Asp Pro Thr Leu Glu
 180 185 190
 Gln Trp Gln Thr Leu Ala Gln Leu Ser Val Glu Lys Gly Trp Leu Pro
 195 200 205
 Leu Phe Asp Phe Ala Tyr Gln Gly Phe Ala Arg Gly Leu Glu Glu Asp
 210 215 220
 Ala Glu Gly Leu Arg Ala Phe Ala Ala Met His Lys Glu Leu Ile Val
 225 230 235 240
 Ala Ser Ser Tyr Ser Lys Asn Phe Gly Leu Tyr Asn Glu Arg Val Gly
 245 250 255
 Ala Cys Thr Leu Val Ala Ala Asp Ser Glu Thr Val Asp Arg Ala Phe
 260 265 270
 Ser Gln Met Lys Ala Ala Ile Arg Ala Asn Tyr Ser Asn Pro Pro Ala
 275 280 285
 His Gly Ala Ser Val Val Ala Thr Ile Leu Ser Asn Asp Ala Leu Arg
 290 295 300
 Ala Ile Trp Glu Gln Glu Leu Thr Asp Met Arg Gln Arg Ile Gln Arg
 305 310 315 320
 Met Arg Gln Leu Phe Val Asn Thr Leu Gln Glu Lys Gly Ala Asn Arg
 325 330 335
 Asp Phe Ser Phe Ile Ile Lys Gln Asn Gly Met Phe Ser Phe Ser Gly
 340 345 350
 Leu Thr Lys Glu Gln Val Leu Arg Leu Arg Glu Glu Phe Gly Val Tyr
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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer

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<212> DNA
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<223> Description of Artificial Sequence: Synthetic
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